

INTRODUCTION



This chapter conveys the local, state, and federal agency as well as the private sector commitment to protect and improve the water quality of surface and ground water impaired by nonpoint source urban runoff activities.

DESCRIPTION

The state of Tennessee has experienced a tremendous amount of urban growth. This growth produces:

- More impervious areas: hydraulic loading, rooftops, driveways, parking lots, roads.
- Loss of riparian zones.
- Increased human and animal contact with streams.

These contribute an increased amount of pollutants to local streams and ground water aquifers. Waters are degraded through loss of habitat, increased sediment and pollutant loadings. Loss of riparian zones can cause downstream flooding conditions and contaminate subsurface water supplies.

In the mid-1990s, the four largest local governments (Memphis, Metro Nashville, Knoxville, and Chattanooga) were required to oversee new construction to ensure the implementation of proper storm water Best Management Practices (BMPs), while on a statewide basis, areas greater than five acres were also required to implement storm water BMPs. This was all required by the National Pollution Discharge Elimination System (NPDES) Phase I permit. Phase II of the stormwater program will be effective in 2003 and will include the following local governments:

The state agency that administers the federal NPDES permitting program is TDEC-Division of Water Pollution Control (WPC) through the State of Tennessee Rule 1200-4.

Several storm water issues are not subject to current state regulation. These non-addressed issues include the retrofitting of storm water BMPs into existing impervious areas, the stabilization of eroding streambanks, rivers, and lakes, and the restoration of degraded riparian zones. These issues can be solved by better local planning, 319 demonstration and education projects, the adoption of local ordinances, and effective enforcement.

The TDA-NPS Program will establish demonstration projects in cities and urbanized areas where water quality problems can be solved, and so that city and county officials can learn from these demonstration projects and implement



similar projects within their areas of responsibility. TDA-NPS Program will seek to leverage SRF funding, non-profit association funding, and local government funding.

With the assistance of the Urban Runoff Working Group, the TDA-NPS Program will learn what type of projects can be addressed with 319 Program funds while determining where these funds would produce the greatest amount of benefit. The working group will provide direction to the TDA-NPS Program as to specific types of projects that need funding. Based upon experience and knowledge obtained from storm water programs in and outside of the state, the TDA-NPS Program will address the following:

| | |
|-----------------------|---|
| Education/Stewardship | Ordinances/Enforcement |
| Retention/Detention | Planning/Engineering/Construction/Maintenance |
| Filtration/Traps | Stabilization/Riparian restoration |
| Irrigated reuse | Perviousness |

EXTENT OF PROBLEM

Water Quality problems from urban runoff include:

- Rapidly changing stream flows
- Increased quantities of water flowing in streams
- Greater human and animal contact with waters
- Large increases in impervious area
- Localized flooding
- Increased pollutant loadings

303(d) LISTED WATERSHEDS

Approximately, 22 percent of the 352 streams found on the 1998, 303(d) List or 79 streams are impaired by storm water/urban runoff issues. Please refer to the 1998 303(d) List, Appendix H.

SOLUTIONS

Many structural, non-structural and multiple BMP systems exist to minimize or eliminate pollution from urban runoff.

Below is a partial listing:

- Check dams
- Silt fences
- Buffer strips
- Retention ponds
- Seeding/Sodding
- Detention ponds
- Swales
- Stabilized banks



- Sediment/debris basins
- Riparian zone restoration
- Urban forestry
- Strategic clearing & grading
- Temporary ground cover
- Street cleaning
- Retention basin/swale/infiltration trench/injection well system
- Modified existing ponds with littoral zones/native aquatic plants

A source for specific information about these and other BMPs can be located on the internet at: <http://www.bmpdatabase.org> or http://www.nashville.org/pw/bmp_manual.html

Programmatic efforts, as listed below, are also essential to the elimination of pollution from urban runoff.

- Local ordinances/enforcement
- Support of local officials
- Public education projects/materials
- On-going maintenance program
- Local citizen stewardship programs
- Public feedback forums
- Watershed management programs

COOPERATING PARTNERS

Partners

American Society of Landscape Architects
Development Districts
Local landowners
Local governments
Lawn service companies
Lawn & garden clubs
Soil Conservation Districts
Tennessee Department of Economic & Community Development
Tennessee Department of Environment & Conservation
 Division of Community Assistance
 Division of Water Pollution Control
 Division of Water Supply
Tennessee Department of Transportation
Tennessee Home Builders Association
Tennessee Municipal League
Tennessee Parks & Greenways Foundation
Tennessee Resource Conservation & Development Districts
Tennessee Society of Professional Engineers
Tennessee Technological University
Tennessee Valley Authority
Tennessee Wildlife Resource Agency

Abbreviations

ASLA

SCDs
TDE&CD
TDEC
 -DCA
 -WPC
 -DWS
TDOT
THBA
TML
TP&GF
TNRC&D
TSPE
TTU
TVA
TWRA



| | |
|---|-----------|
| US Department of Agriculture-Natural Resources Conservation Service | USDA-NRCS |
| US Fish & Wildlife Service | USF&WS |
| UT Center for Industrial Services | UT-CIS |
| UT County Technical Assistance Service | UT-CTAS |
| UT Municipal Technical Advisory Service | UT-MTAS |
| UT-Water Resources Research Center | UT-WRRC |

The following text further defines the programs of the above referenced partners.

American Society of Landscape Architects (ASLA)

Certified landscape architects are accustomed to participating as partners in remediation and abatement projects. These professionals can provide valuable information to municipalities as well as provide the services of landscape design and construction oversight to ensure that the BMP is not only aesthetically pleasing, but is also functional and long-lasting. The ASLA can provide technical assistance and guidance.

Development Districts

The purpose of a development district is to ensure the consistent and wise growth of its district's geographic area. The development districts will be a leader in ensuring that all local governments understand the importance of clean water and are willing to show good stewardship to ensure that it is achieved.

Landowners

Local landowners are the key to the success of any water quality effort. By remaining advocates of local water quality, demanding that local officials pursue clean water efforts, practicing good stewardship, and spreading the word to others throughout their community, they provide the base upon which all water quality efforts can be built. Landowners can also play a key role in allowing demonstration projects placed upon their properties and then maintaining and demonstrating these to others.

Lawn service companies

Lawn services companies can serve as demonstrations for proper mixing, storage, and application of pesticides in residential and commercial areas throughout the states. This has already been done by the TDA-Regulatory Services Division and has proven to be a possible means of expanding the knowledge of other citizens in the service area of the company. These companies could also serve as a distribution system of educational materials addressing proper mixing, storage, and application. This would be done through their contacts with their clients, hosting periodic clean water meetings, establishing educational signage at highly visible public locations throughout the community, and setting up pesticide displays at public functions such as fairs and school activities.

Lawn & garden clubs

These citizen-driven groups can serve as educational (proper pesticide application, storage, and disposal) distribution points. A network of these groups exists within a statewide association that can serve as linkage for efforts between



municipalities and counties. These clubs could also serve as outreach partners placing pesticide educational materials at many public forums, such as, environmental fairs and school functions.

Local governments

(city and county elected officials and planning, health, public works, recreation, and education departmental staff)

As many of Tennessee's towns, suburbanized areas, and cities experience residential and commercial growth a significant amount of farm land and woodlands are being converted to more impervious surfaces. During the construction phase of this transition, as well as later when the impervious surfaces are in place, the local city and county governing bodies along with the citizens will need to remain aware of and protect the existing ag-related remediation efforts. More importantly, the governing bodies will need to assume the leadership role of the nps effort by educating the citizens of the need for water quality measures and establishing means in which to ensure that these measures are faithfully used by all developers, contractors, and landowners.

The TDA-NPS Program can assist in the development of local sites that demonstrate the most effective BMPs. This can be done in non-NPDES areas where permits are not in place. The TDA-NPS Program can also assist NPDES and non-NPDES cities in any restoration project not specifically required by an NPDES permit.

Private consulting firms

Private consulting firms have water quality specialists and engineers who are accustomed to participating in remediation and abatement projects. These professionals can provide valuable information to municipalities as well as provide the services of planning, design, and construction oversight. Consulting firms can perform reconnaissance studies to determine what type of remediation is needed and then provide the needed BMPs as well. Consulting firms will participate in functions of the urban runoff working group, thereby ensuring that projects funded by the TDA-NPS Program are technically sound and will function properly.

Soil Conservation Districts (SCDs)

The soil conservation district board of each county will be a partner in the effort to reduce nps pollution to the local streams and subsurface drainage. The SCD, as a primary state contractor, can provide a significant amount of financial assistance to local water quality efforts regardless if they are agricultural or not. Through its direct interaction with the local NRCS district conservationist, the SCD will also direct technical as well as administrative assistance to local water quality remediation efforts.

Tennessee Department Agriculture (TDA) – Forestry Division

TDA foresters are among the best individuals to consult for information regarding the reforestation of many denuded high slope and streamside areas in the suburbs and urban areas of Tennessee. These water quality professionals can also serve as educators of proper forestry management/water quality techniques.



As greenways are developed in the urbanized areas of Tennessee the TDA-NPS Program will assist in establishing local water quality teams. These teams will be comprised of recreation department staff, water quality professionals, foresters, TP&GF staff, educators, and citizens with the intent of reforesting these greenways to serve as buffers and developing signage along the eventual walking trails to serve as an educational tools. Tennessee has three urban foresters.

Tennessee Department of Economic & Community Development (TDE&CD)

One of the most important roles of TDE&CD is to ensure the consistent and wise growth of the state and its regions. It is imperative that the state and its individual regions have a healthy source of drinking water. The TDE&CD will be a leader in ensuring that all local governments understand the importance of clean water and are willing to show good stewardship to achieve this goal.

TDEC-Division of Community Assistance (TDEC-DCA)

As the TDA-NPS Program demonstrates new building and retrofitting urban runoff BMPs across the state it will also be endorsing the use of the State Revolving Funds (SRF) Program, a financial assistance program managed by TDEC-DCA. The TDA-NPS Program has held meetings with TDEC-DCA concerning the use of these funds in an effort to assist in the construction of storm water BMPs throughout the state. Once a city or county witnesses a 319 funded BMP demonstration it will realize the advantages of implementing such a BMP and contact the SRF Program for a low interest loan.

TDEC-Division of Water Pollution Control (TDEC-WPC)

TDEC-WPC will monitor the receiving streams before and after the implementation of BMPs in the suburbs and cities of the state. Currently, TDA-NPS Program is assisting TDEC-WPC in this effort by providing them with funding to for a portion of their monitoring efforts. This type of water quality data can assist the TDA-NPS Program in focusing in on urban runoff problem areas, while producing the data needed to confirm that urban runoff BMPs have solved the water quality problems.

Phase I cities as well as future Phase II cities will be required, through permits, to perform certain water quality activities that cannot be paid for with 319 funds. By meeting with city officials, the TDA-NPS Program will learn what these requirements are as well as how the TDA-NPS Program can partner with the city on non-permitted issues such as storm water retrofitting and stream bank stabilization projects.

TDEC-Division of Water Supply (TDEC-DWS)

TDEC-DWS is interested in the advancement of any efforts that will improve water quality upstream of public water supply intakes across the state. Any activity that would improve ground water quality would also be of interest to TDEC-DWS.

TDEC-DWS also manages the Source Water Assessment Program (SWAP), which is presently performing pollution source assessment studies along a corridor of 2000 feet wide by five-miles long above each surface water intake.



These studies will produce inventories of nonpoint source problem areas. The TDA-NPS Program will use information collected through SWAP as a target future projects.

Tennessee Department of Transportation (TDOT)

Federal and state highways criss-cross the rapidly growing suburban and urban areas of the state providing more accessible and effective access from one point to another. Yet, in the same vein, the road systems introduce a tremendous amount of hydrocarbon and heavy metal concentrations to the local receiving streams and subsurface aquifers.

The TDA-NPS Program has the ability to introduce specially designed retrofitted BMPs to catch these pollutants before they enter the neighboring water resources. TDOT also has the ability to partner with 319 funds to create these types of BMPs at heavily used interchanges in suburban and urban settings across the state. By partnering, these state agencies could establish demonstrations of such BMPs geographically disseminated across the state and then invite city, county, and other related officials to view these BMPs. Once this is accomplished the TDEC-DCA could fund any subsequent proposed BMPs with SRF Program funds at a low interest rate.

Tennessee Home Builders Association (THBA)

The THBA has the ability to convey the importance of proper BMPs to the growing construction industry of the state. Not only can it assist in the training of construction personnel, but it can also assist in conveying the importance of storm water BMPs to developers and planners so that these professionals will be more likely to incorporate them into their construction plans.

Tennessee Municipal League (TML)

The TML is an organization to which cities throughout the state belong. It will serve as a networking partner with the TDA-NPS Program. Its role would be to inform local officials across the state of water quality issues and the necessity to initiate water quality BMPs through 319 and SRF funding as well as other funding sources.

Tennessee Parks & Greenways Foundation (TP&GF)

The TP&GF is involved in acquiring lands along streams throughout the state. By acquiring land along the receiving streams, it can apply riparian restorations to areas that need runoff buffers, thereby providing water quality improvements and habitat benefits to the stream.

By teaming up with the local recreation department, TDA-NPS Program, TDA-Forestry Division, RC&D Council, and the local citizens, TP&GF could provide restoration assistance to Tennessee's communities. Additionally, it could provide educational signage addressing water quality and habitat restoration issues along these greenways.

Tennessee RC&D Council (TNRC&D)

The eight RC&D districts across the state will be instrumental in the development of urban runoff BMP implementation projects in many of Tennessee's fastest



growing areas. Two RC&D Districts are currently under state contract to partner with local governments to initiate demonstration BMPs throughout their multi-county areas. The intent of these contracts is to familiarize local governments with the advantages of establishing construction and storm water runoff BMPs. It is hoped that once these governments implement their BMPs they will see the merit in using BMPs throughout their city or county. A partnering effort between the governments will also be initiated in an effort to exchange BMP construction and maintenance knowledge with one another. In this manner, a wide array of BMPs can be implemented in the future.

Tennessee Society of Professional Engineers (TSPE)

The TSPE member association can be used to direct information to the consulting engineers of Tennessee concerning project ideas and funding sources for their clients.

Tennessee Valley Authority (TVA)-Resource Stewardship Watershed Team Program

The TVA water quality professionals have the ability to generate local involvement while providing water quality expertise. Water quality monitoring as well as aerial photography land use inventory capabilities from TVA provide substantial technical support to this urban runoff effort. TVA has the financial capability of funding ancillary projects that could assist in promoting many of the needed BMPs.

Tennessee Wildlife Resource Agency (TWRA)

The TWRA biologists and water quality professionals are well informed about what aquatic life should be present in the receiving streams as well as what needs to be done to protect flora and fauna. Biological monitoring and participation in working group meetings will be provided by the local TWRA staff. TWRA could provide educational information and material to restore the local fisheries as the local water quality improves.

Tennessee Technological University (TTU)

The TTU-Water Center is currently under state contract to partner with local governments to initiate demonstration BMPs throughout the Pigeon Roost Creek watershed of south Cookeville. The intent of this contract is to familiarize local governments with the advantages of establishing storm water runoff BMPs. It is hoped that once the City of Cookeville implements this BMP it will see the merit in using BMPs throughout the city.

USDA-Natural Resources Conservation Service (NRCS)

The local district conservationist (DC) representing the NRCS will serve as an advisor and possibly, the designer for many sediment control problems found in suburban and urban areas. Many of the contacts with the landowner at the BMP site will be the DC. The NRCS state engineer will also play a role in the design of the more complex and larger sediment control BMPs.

US Fish & Wildlife Service (USF&WS)

USF&WS has been funding and assessing water quality in Tennessee streams for many years. Data collected is used by TDEC-WPC in all permitting decisions.



This agency provides considerable expertise in the field of biological integrity as well as funding assistance in certain cases.

US Golf Course Association-Tennessee Chapter

With the constant growth of urban areas throughout the state comes the increase in the number of golf courses. Public and private Tennessee golf course managers attend meetings to gain training about proper use and control of pesticides and their impact on water quality. These golf courses could be an important public education site where displays and water quality information is transferred to the public.

UT County Technical Assistance Service (UT-CTAS)

As the county government initiates water quality BMPs for urban runoff problems UT-CTAS will serve an important role towards assisting the local department with technical expertise while planning and implementation stages are in progress. This effort will be easily paired with any 319 BMP implementation in the watershed as well.

UT Municipal Technical Advisory Service (UT-MTAS)

As the city government initiates water quality BMPs for urban runoff problems UT-MTAS will serve an important role towards assisting the local department with technical expertise while planning and implementation stages are in progress. This effort will be easily paired with any 319 BMP implementation in the watershed as well.

UT Center for Industrial Services (UT-CIS)

UT-CIS will play a key role in training planners and construction personnel statewide in using water quality BMPs. UT-CIS is currently in the process of producing a 319-funded videotape that addresses the proper use of construction BMPs.

UT-Water Resources Research Center (UT-WRRC)

In partnership with the UT Department of Civil and Environmental Engineering, UT-WRRC is under state contract to produce a manual which illustrates all available storm water management BMPs as well as how to properly permit and maintain them. This effort is partially supported with 319 Program funds in an effort to introduce the use of proper urban runoff/storm water and construction BMPs to the city and county governments across the state. The manual will be reviewed by members of the 319 Program's Urban Runoff working group and also presented at three workshops attended by city and county officials.

Ancillary Programs

The activities of the TDA-NPS Program will need to be coordinated with the existing NPDES efforts to ensure that 319 funds are not expended on satisfying permit requirements, while building a strong partnership with the city to facilitate the exchange of clean water ideas. The TDA-NPS Program will also coordinate with the TDA-Regulatory Services Division's Pesticide Management Program to ensure no overlap occurs there either, rather a partnering effort to enhance one another's effectiveness.



OTHER FUNDING SOURCES

TDEC-DCA administers the State Revolving Loan Program that can be used to fund urban runoff projects. The TDA-NPS Program will coordinate with TDEC-DCA to increase the number of nonpoint source project proposals they receive for funding.

Additional funding sources for environmental projects are listed in the Catalog of Federal Funding, which can be found at: <http://www.aspe.os.dhhs.gov/cfda>

TDA-NPS will inform all partners and funding recipients about this comprehensive list.

CURRENT 319 PROJECTS

The TDA-NPS Program introduced storm water/urban runoff projects in 1997. This effort was originated through a partnership of the University of Tennessee, the City of Chattanooga, and the TDA-NPS Program. From this partnership, one working group and two projects were developed.

The URWG was formed in 1997. This has served as a forum for the exchange of ideas and the peer review of the phase I and phase II storm water manuals. The URWG will provide the TDA-NPS Program with feedback on project proposals, so that projects of the highest quality will be funded.

A storm water manual intended for elected officials was first thought of as a means of introducing city mayors and county executives to this issue. An introductory manual to storm water and urban runoff, developed in 1999 by the University of Tennessee Water Resources Research Center, was accompanied by a filmed, one-day workshop, which took place on June 24, 1999. More than fifty city and county officials attended this workshop. Printing and distribution of the manual and editing, reproduction, and distribution of the videotape will be funded through future grants.

A second storm water manual intended for technical officials has a 2000 release date. It will be accompanied by a filmed, one-day workshop held in three locations. This manual will be a compilation of BMPs accompanied by instructional assistance addressing how to plan, permit, implement, and maintain urban runoff BMPs. A videotape, intended for wide distribution, will also be a product of this project.

The following is a list of current and proposed 319 projects addressing urban runoff.

| <u>Grant Year</u> | <u>Project Title</u> | <u>Location</u> | <u>Status</u> |
|-----------------------|--|-----------------|---------------|
| FY-96 | Storm water Mgmt. – Elected Officials (man. & workshop) Phase I | Statewide | Complete |
| FY-98 | Storm water Mgmt. – Technical | Statewide | In-process |



| | | | |
|-------|---|-------------------|------------|
| | Officials (man. & workshop) Phase II | | |
| FY-99 | 5 Rivers RC&D Urban NPS Demonstration | NW Middle TN | In-process |
| FY-99 | Tennessee Valley Urban NPS | East TN | In-process |
| FY-99 | Urban NPS BMPs for Sinkhole Drainage in Pigeon Roost Creek (Cookeville) | Putnam/ Middle TN | In-process |

AREAS FOR PROGRAM EXPANSION

TDA-NPS Program is working with TDEC-WPC to restore impaired waters and to fully implement TMDLs. As TMDLs are developed for pollutants from urban runoff, more projects of this type will be funded.

The challenges associated with Urban Runoff are complex. Emphasis will be placed on funding projects that seek to educate elected officials and professionals about the potential consequences of development on water quality. TDA-NPS will investigate the Nonpoint Education of Municipal Officials (NEMO) Program.

WATER QUALITY MONITORING & ASSESSMENT

TDA-NPS Program supports the watershed based monitoring program of TDEC-WPC. Additional funding for monitoring in the 11 priority watersheds identified through the Unified Watershed Assessment (UWA) is provided to TDEC-WPC. Monitoring is a required element of all NPDES stormwater permits issued by TDEC-WPC. Assessment of watersheds is performed by TDEC-DWS through the SWAP program. See chapter 1-9, Water Quality Monitoring for a comprehensive list of all groups that perform monitoring.

ENFORCEMENT MECHANISMS

The state agency that applies storm water enforcement is TDEC-Division of Water Pollution Control. This agency administers the NPDES Phase I Program as well as the Aquatic Resources Alteration Permit (ARAP) Program. In 2003, TDEC-WPC will also administer the NPDES Phase II permit program. TDEC-WPC has been assigned these responsibilities through State of Tennessee Rule 1200-4.

Any disturbances to streams are also protected by the U.S. Army Corps of Engineers through the 404 permit.

MEASURES OF SUCCESS

- Decrease in the number of stream miles impaired by urban runoff.
- Increase in the number of urban runoff educational materials produced.
- Implementation plans for all urban TMDLs developed by TDEC-WPC are written.



- Increase in the number of proposals received for funding that are focused on urban runoff.

MILESTONES

Long Term Goal 1.

Hold regularly scheduled meetings with stakeholders, to create new partnerships, to strengthen existing partnerships and to foster greater trust, commitment and accountability.

- **Action 1:** The Urban Runoff Working Group (URWG) will meet semi-annually.
Lead: TDA-NPS Program
Key partners: TDEC-WPC; Local governments; UT-MTAS; UT-CTAS; UT-WRRC; TNRC&D
Year(s): 2001-2005
- **Action 2:** Increase URWG membership by one member each year.
Lead: TDA-NPS Program
Key partners: TDEC-WPC; Local governments; UT-MTAS; UT-CTAS; UT-WRRC; TNRC&D
Year(s): 2001-2005
- **Action 3:** Establish the URWG mission statement, a list of collective capabilities, and priorities for funding.
Lead Agencies: URWG and TDA-NPS Program
Year(s): 2001-2005
- **Action 4:** Develop Memoranda of Agreement with key federal agencies to improve programmatic consistency.
Lead: TDA-NPS Program
Key Partners: All federal agency partners
Year(s): 2001-2005

Long Term Goal 2.

Fully implement all developed TMDLs for nonpoint sources in compliance with existing regulations, policies, or agreements by 2015.

Refer to Chapter 1.11, TMDL Implementation for specific action items related to this Long Term Goal.



Long Term Goal 3.

Restore all waters impaired by nonpoint sources that are listed on the 1998 303(d) List to the condition of fully supporting their designated uses by 2015, in cooperation with local, state and federal partners.

- **Action 1:** Install BMPs so that 20% of the streams impaired due to urban runoff on the 1998 303(d) List will support their designated uses.
Lead: TDEC-WPC
Key partners: Local governments; UT-MTAS; UT-CTAS; UT-WRRC; TNRC&D; TDA-NPS
Year(s): 2005
- **Action 2:** Install BMPs so that 60% of the streams impaired due to urban runoff on the 1998 303(d) List will support their designated uses.
Lead: TDEC-WPC
Key partners: Local governments; UT-MTAS; UT-CTAS; UT-WRRC; TNRC&D; TDA-NPS
Year(s): 2010

Long Term Goal 4.

Beginning in 2006, through regulatory and non-regulatory means, prevent previously unlisted waters from being included on the 303(d) List because of nonpoint source impairments.

- **Action 1:** Implement BMPs on streams not listed on the 1998 303(d) List
Lead: TDA-NPS Program
Key partners: Local governments; UT-MTAS; UT-CTAS; UT-WRRC; TNRC&D; TDEC-WPC
Year(s): 2001-2005

Long Term Goal 5.

Improve the knowledge of stakeholders and citizens concerning the origins, magnitude, and prevention of nonpoint source pollution, and how to prevent it.

- **Action 1:** Develop and distribute educational material concerning Urban Runoff issues in increasing amounts each year.
Lead: TDA-NPS Program
Key partners: URWG
Year(s): 2001-2005
- **Action 2:** Provide funding to at least one urban runoff project annually.
Lead: TDA-NPS Program
Key partners: URWG
Year(s): 2001-2005



- **Action 3:** Provide information concerning Urban Runoff issues on the TDA-NPS web page.
Lead: TDA-NPS
Year(s): 2001
- **Action 4:** Develop Phase III and IV of Stormwater education of professionals and local officials regarding urban runoff.
Lead: TDA-NPS
Year(s): 2005
- **Action 5:** Investigate the feasibility of beginning the NEMO program in Tennessee.
Lead: TDA-NPS
Years: 2001

Long Term Goal 6.

Through the process of continuous improvement, routinely assess all programmatic functions of the TDA-NPS Program in order to maximize efficiency, decrease the bureaucratic burden and increase the numbers of participants in the program.

- **Action 1:** Investigate other funding sources such as The Nature Conservancy, Brownfields Program, as well as EPA.
Lead: TDA-NPS Program
Key partners: The Nature Conservancy; US EPA
Year(s): 2001-2005
- **Action 2:** Provide responses to all project related inquiries from grantees within three business days of the request.
Lead: TDA-NPS Program
Year(s): 2001-2005
- **Action 3:** Work with grantees to achieve timely submittal of all progress reports 100% of the time.
Lead: TDA-NPS Program
Year(s): 2001-2005
- **Action 4:** Develop a Priority Ranking System for project review.
Lead: TDA-NPS Program
Key Partner: URWG
Year(s): 2001-2005
- **Action 5:** Request feedback from partners annually to assess the quality of the services provided by the TDA-NPS Program.
Lead: TDA-NPS Program
Year(s): 2001-2005



Long Term Goal 7

Use the maximum allowable percentage of funding annually to assist partners with water quality monitoring and assessment, for the duration of the 319 program.

See Chapter 1.9 for action items related to water quality monitoring for the TDA-NPS Program.